

DERWENT-ACC-NO: 1987-012955

DERWENT-WEEK: 199151

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TITLE: Water absorbent resins prepn. by  
polymerising aq. soln. of carboxylic monomer in suspension  
in organic solvent with water and oil-soluble  
polymerisation initiators

INVENTOR: FUJITA S; HIROKAWA S ; KARUBE K ; MASAMIZU K

PATENT-ASSIGNEE: LION CORP[LIOY]

PRIORITY-DATA: 1985JP-111933 (May 24, 1985)

PATENT-FAMILY:

PUB-NO	PUB-DATE	
LANGUAGE		
NL 8601318 A	December 16, 1986	NL
JP 61271303 A	December 1, 1986	JA
DE 3617311 A	February 26, 1987	DE
DE 3617311 C	December 19, 1991	DE

APPLICATION-DATA:

PUB-NO	APPL-DESCRIPTOR	APPL-NO
APPL-DATE		
NL 8601318A	N/A	1986NL-001318
May 23, 1986		
JP 61271303A	N/A	1985JP-111933
May 24, 1985		
DE 3617311A	N/A	1986DE-
3617311	May 23, 1986	
DE 3617311C	N/A	1986DE-
3617311	May 23, 1986	

INT-CL-CURRENT:

TYPE	IPC	DATE
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CIPP	C08F4/00	20060101
CIPS	C08F2/12	20060101
CIPS	C08F2/14	20060101
CIPS	C08F2/16	20060101
CIPS	C08F2/18	20060101
CIPS	C08F2/32	20060101
CIPS	C08F20/00	20060101
CIPS	C08F22/00	20060101
CIPS	C08F4/04	20060101
CIPS	C08F4/28	20060101
CIPS	C08F4/30	20060101
CIPS	C08F4/34	20060101
CIPS	C08F4/38	20060101

ABSTRACTED-PUB-NO: NL 8601318 A

#### BASIC-ABSTRACT:

A water-absorbing resins are prepd. using a water-soluble polymerisation initiator (I) and an oil-soluble polymerisation initiator (II), by polymerising an aq. soln. of a monomer (III) which forms a water-absorbing polymer, in suspension or emulsion in an organic solvent. (III) is pref. a vinyl monomer with a carboxyl or carboxylate gp., esp. (meth)acrylic acid, itaconic acid, maleic acid, fumaric acid and salts of these.

(III) is a carboxylic acid which is 60-90% neutralised. (III) may be copolymerised with 1-50 wt.% (on total monomer) of other copolymerisable monomers (IV). A cross linking agent (V) may be incorporated before, during or after the polymerisation. A dispersing agent may be used in an amt. of 0.1-25 wt. %

USE/ADVANTAGE - The process gives a high degree of conversion of monomer and

gives polymers contg. only very small amts. of unconverted monomer, thus removing problems of odour and safety. The polymers have a high gel strength and a high water-absorbent character, and are useful eg as water retaining agents for soil, seed coating compsns., water blocking agents, condensn. inhibitors, and as agents for absorption of body fluids, e.g. in sanitary towels and diapers.

TITLE-TERMS: WATER ABSORB RESIN PREPARATION POLYMERISE  
AQUEOUS SOLUTION

CARBOXYLIC MONOMER SUSPENSION ORGANIC SOLVENT  
OIL SOLUBLE INITIATE

DERWENT-CLASS: A14 A96 A97 C03 D22 P32

CPI-CODES: A04-F04A; A04-F05; A09-A; A10-B03; A10-B05;  
C04-C03A; C04-C03B;  
D09-C06;

CHEMICAL-CODES:

Chemical Indexing M1 \*01\*

Fragmentation Code

G010 G100 H541 H589 H7 H714 H721 J0 J011 J012  
J171 J172 J271 J272 J371 M210 M211 M212 M213 M214  
M215 M216 M220 M221 M222 M223 M224 M225 M231 M232  
M233 M262 M272 M280 M281 M282 M312 M313 M320 M321  
M323 M331 M332 M342 M382 M383 M391 M393 M423 M510  
M520 M530 M531 M540 M630 M720 N152 N512 N513 P123  
R022 V742 V743

UNLINKED-DERWENT-REGISTRY-NUMBERS: 0426U; 0426S ; 0444S ;  
0446S ; 0460S ; 0610U  
; 0610S ; 0654S ; 0879U ; 0901S ; 0902S ; 0904U ; 1691S ;  
1732U ; 1732S ; 1737U  
; 1737S ; 1771S ; 5020U ; 5028U ; 5235U

POLYMER-MULTIPUNCH-CODES-AND-KEY-SERIALS:

Key Serials: 0013 0030 0034 0036 0037 0043 0046 0201 0204

0206 0211 0224 0230  
 0409 0411 0412 0416 0418 0503 0506 0587 0590 0621 0622 1123  
 1158 1159 1162 1165  
 1166 1169 1173 1176 1214 1215 1218 1235 1236 1239 1279 1282  
 1415 1417 1418 1422  
 1424 1425 1429 1431 1432 1588 2002 2014 2015 2020 2024 2027  
 2028 2029 2066 2271  
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 2691 2729 3003 3152  
 3250 3287

Multipunch Codes: 028 034 04& 06- 074 075 076 077 09- 10&  
 104 105 107 116 13-  
 130 132 147 15& 155 157 198 231 240 264 265 266 267 27& 273  
 31- 311 316 318 327  
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 27& 273 31- 311 316  
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273	31-	311	316	318										
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